## COMPUTER SCIENCE B.S.

## Four Year Plan

Disclaimer: This sample Four Year Plan is provided as a guide for the recommended sequencing of courses. Vanguard University requires that students complete a minimum of 120 units of required course work as outlined on the Requirements tab in order to receive a Bachelor of Arts, Bachelor of Music, Bachelor of Science, or Bachelor of Science in Nursing degree. It is the student's responsibility to confirm with the department the course rotation before enrolling in courses. If applicable, please note the footnotes at the bottom of the page for additional information related to courses listed in a particular year and term. Questions, contact the Department of Physical Sciences and Applied Mathematics.

Study Abroad Participation: Students interested in participating in the university's Study Abroad programs are encouraged to reach out to the Global Education and Outreach Office (studyabroad@vanguard.edu) for more information and collaboration in their academic course planning. Students using Education and Training Benefits through the U.S. Department of Veteran Affairs are encouraged to also reach out to the School Certifying Official (veteranscertifyingofficial@vanguard.edu) for more information regarding how benefits can be applied.

| Course | Title | Units |
| :--- | :--- | ---: |
| Year 1 Term 1 |  |  |
| CORE-100C | Cornerstone | 1 |
| MATH-180C | Calculus 1 | 4 |
| ENGL-120C | Persuasive Writing | 3 |
| NT-101C | New Testament Survey | 3 |
| CSCI-110C | Introduction to Computer Science | 4 |
|  | Units | $\mathbf{1 5}$ |

## Year 1 Term 2

| MATH-181C | Calculus II | 4 |
| :--- | :--- | ---: |
| CSCI-208 | Java Programming | 4 |
| HIST-PLHD | History Core Requirement | 3 |
| THEO-101C | Foundations of Christian Life | 3 |
| KINE-148C | Lifetime Fitness and Wellness Lecture | 3 |
|  | Units | $\mathbf{1 7}$ |

Year 2 Term 1

| CSCI-217 | Database Systems 1 | 3 |
| :--- | :--- | ---: |
| MATH-265C | Intro to Statistical Methods | 3 |
| CSCI-205 | Cybersecurity | 3 |
| COMM-201C | Speech Composition and Presentation | 3 |
| SOC-PLCR | Social Science Core Curriculum Reqm't | $\mathbf{3}$ |
|  | Units | $\mathbf{1 5}$ |

## Year 2 Term 2

| MATH-285 | Introduction to Advanced Mathematics | 3 |
| :--- | :--- | :--- |
| CSCI-218 | Python Programming | 4 |
| ENGL-220C | Researched Writing | 3 |
| OT-201C | Old Testament Survey | 3 |


| SOC-PLCR | Social Science Core Curriculum Reqm't | 3 |
| :---: | :---: | :---: |
|  | Units | 16 |
| Year 3 Term 1 |  |  |
| MATH-300 | Linear Algebra | 3 |
| MATH-375 | Discrete Mathematics | 3 |
| CSCI-317 | Data Structures | 4 |
| CSCI-330 | Introduction to Operating Systems | 3 |
| ENGL-230C | Literature and the Human Experience | 3 |
|  | Units | 16 |
| Year 3 Term 2 |  |  |
| THEO-300C | Developing a Christian World View | 3 |
| CSCI-302 | Algorithm Design and Applications | 3 |
| CSCI-305 | Programming Languages | 3 |
| HIST-PLCR2 | History Core Requirement (World Civ) | 3 |
| FINA-PLCR | Fine Arts Core Curriculum Requirement | 3 |
|  | Units | 15 |
| Year 4 Term 1 |  |  |
| PSCI-PLCR2 | Physics - Phys2/Lab or Elect/Mag | 4 |
| CSCI-415 | Computer Architecture | 3 |
| CSCI-216 | Intro to Web Programming | 4 |
| CSCI-ELECT | CSCI/MATH Elective | 3 |
|  | Units | 14 |
| Year 4 Term 2 |  |  |
| CSCI-325 | Introduction to Networks | 3 |
| CSCI-499C | Computer Science Capstone | 3 |
| CSCI-411 | Software Engineering 1 | 3 |
| CSCI-425 | Computing Theory | 3 |
| CHIS-400C | Christian Heritage | 3 |
|  | Units | 15 |
|  | Total Units | 123 | UNIVERSITY

